

## ABSTRACT

Methods for indexing and storing genetic data include assigning a virtual private identity (VPI) to participants in a clinical study. The VPI may comprise a random number, or some other type of identifier that lacks any information that may be employed, in and of itself, to determine identity information. The system may then create an encrypted and secure database that contains the pairing between patient identity information and the assigned VPI. Information collected from the patient may be stored into data tables of a database where the VPI is employed as an index into the tables that store the patient data. The data stored in association with a respective VPI may be encrypted with an encryption key generated from the VPI. The encryption key may be stored in a Key Table and the Key Table may be encrypted with a Master Key.